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Serial No. 09/837,71/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)

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June 12,1998

Group / 52

E		Witt et al., "6-Phospho- β -galactosidases of Gram Positive and 6-phospho- β -glucosidase B of Gram-Negative bacteria: comparison of structure and function by kinetic and immunological methods and mutageneisis of the lacG gene of Staphyloccous aureus" Protein Engineering 6: 913-920 (1993).
3)		Nikolova et al., "Transglycosylation by Wild Type and Mutants of a β-1,4-Glycosidase from Cellulomonas fimi (Cex) for synthesis of Oligosaccharides", Annals NY Acad. Sci. 799: 19-25 (1996).
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OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.)

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ES		WANG, et al. (1994) "Changing Enxymic Reaction Mechanisms by Mutagenesis: Conversion of a Retaining Glucosidase to an Inverting Enzyme", J. Am. Chem. Soc. 116:11594-11595.	
E8E1S1		SVENSSON, (1988) FEBS Letters 230:72-76.	
91		NAGASHIMA, et al. (1992) Biosci. Biotech. Biochem. 56:207-210.	
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